

Claims:

1. A replicate for application to a blister package containing a plurality of articles, each in an individual blister such that each such article can be projected through a corresponding portion of the package and the replicate for removal from the package, said replicate including a frangible backing sheet, an integrated circuit on said backing sheet, a plurality of individual electrically conductive traces on said backing sheet, each of which is connected to said integrated circuit, a power source for the integrated circuit, and means for attaching said replicate to said package, each of said traces being positioned on said backing sheet so as to intersect a corresponding one of said blisters when said replicate is attached to said package, whereby when an article is projected from its blister through said replicate the corresponding trace is broken, so as to define an event that can be recorded by said integrated circuit.

2. The replicate of claim 1 wherein said integrated circuit includes a clock and a non-volatile memory, whereby a time associated with each event can be recorded in said memory for retrieval at a later point in time.

3. The replicate of claim 1 or claim 2 wherein said power supply is integral with said integrated circuit.

4. The replicate of any one of claims 1 to 3 wherein said integrated circuit and said traces are printed on said backing sheet.

5. The replicate of any one of claims 1 to 4 wherein an adhesive is applied to said backing sheet for attachment of said replicate to said blister package.

6. The replicate of any one of claims 1 to 5 wherein a cover sheet is applied to said replicate with said integrated circuit and said conductive traces sandwiched between said cover sheet and said backing sheet to create a laminated replicate.

7. A method of manufacturing a replicate for application to a blister package of individual blisters each of which contains one of a plurality of articles, which articles are removed from the package by being projected through a corresponding portion of the replicate, said method comprising the steps of:

providing a roll of suitable frangible backing material;

continuously feeding said material to applicator means whereby an integrated circuit and a plurality of individual traces for each replicate are applied to one surface of said material, each trace being connected to a respective contact of said integrated circuit and said traces being positioned in a pattern related to the locations of the blisters in said package; and

5 severing said roll of material between adjacent pairs of replicates to create a plurality of individual replicates each of which can be applied to an individual blister package.

8. The method of claim 7 including the step of applying an adhesive to said material for securely attaching a replicate to a blister package.

10 9. The method of claim 7 including the step of applying a roll of suitable cover material to said first-identified roll of backing material before said severing step whereby said integrated circuits and said traces are sandwiched between two layers defined by said cover material and said backing material.

15 10. A blister package comprising:
a sheet of material having a plurality of openings therethrough.
a plurality of individual flexible blisters mounted to one surface of said sheet, each of said blisters being in registry with a corresponding opening;
20 an article located in each of said blisters;
a closure seal formed of frangible material extending across each said opening so as to hermetically capture the article in the corresponding blister;
a replicate secured to the opposite surface of said sheet, said replicate including:
a frangible backing sheet;
25 an integrated circuit on said backing sheet;
a plurality of individual electrically conductive traces on said backing sheet, each of which is connected to said integrated circuit;
a power source for the integrated circuit;
and means for attaching said replicate to said opposite surface;
30 each of said traces being positioned on said backing sheet so as to intersect a corresponding one of said closure seals when said replicate is attached to said package, whereby when an article is projected from its blister through said closure seal and said replicate the corresponding trace is broken, so as to define an event that can be recorded by said integrated circuit.

11. A blister package comprising:
a sheet of material having a plurality of openings therethrough.
a plurality of individual flexible blisters mounted to one surface of said sheet, each of said blisters being in registry with a corresponding opening;
5 an article located in each of said blisters;
a closure seal formed of frangible material extending across each said opening so as to hermetically capture the article in the corresponding blister;
a replicate secured to said one surface of said sheet, said replicate including:
a frangible backing sheet;
10 an integrated circuit on said backing sheet;
a plurality of individual electrically conductive traces on said backing sheet, each of which is connected to said integrated circuit;
a power source for the integrated circuit; and
means for attaching said replicate to said one surface;
15 each of said traces being positioned on said backing sheet so as to intersect a corresponding one of said blisters when said replicate is attached to said package, whereby when an article is projected from its blister through said closure seal and said replicate the corresponding trace is broken, so as to define an event that can be recorded by said integrated circuit.

20 12. The package of claim 11 including a cover sheet through which said blisters project, said cover sheet being applied to said one surface of said backing material so as to capture said replicate between itself and said one surface of said backing material.

25 13. A replicate for application to a blister package containing a plurality of articles, each in an individual blister such that each such article can be projected through a corresponding portion of the package and the replicate for removal from the package, said replicate including a frangible backing sheet, an integrated circuit on said backing sheet, a grid defined by intersecting sets of parallel electrically-conductive traces on said backing sheet and connected
30 to said integrated circuit, a power source for the integrated circuit, and means for attaching said replicate to said package, said traces being positioned on said backing sheet so that more than one thereof will intersect each of said blisters when said replicate is attached to said package, whereby when an article is projected from its blister through said replicate the traces there below are broken, so as to define an event that can be recorded by said integrated circuit.

14. The replicate of claim 13 wherein said integrated circuit includes a clock and a non-volatile memory, whereby a time associated with each event can be recorded in said memory for retrieval at a later point in time.

15. The replicate of claim 13 or claim 14 wherein said power supply is integral with said integrated circuit.

16. The replicate of any one of claims 13 to 15 wherein said integrated circuit and said traces are printed on said backing sheet.

17. The replicate of any one of claims 13 to 16 wherein an adhesive is applied to said backing sheet for attachment of said replicate to said blister package.

18. The replicate of any one of claims 13 to 17 wherein a cover sheet is applied to said replicate with said integrated circuit and said conductive traces sandwiched between said cover sheet and said backing sheet to create a laminated replicate.

19. A method of manufacturing a replicate for application to a blister package of individual blisters each of which contains one of a plurality of articles, which articles are removed from the package by being projected through a corresponding portion of the replicate, said method comprising the steps of:

providing a roll of suitable frangible backing material;

continuously feeding said material to applicator means whereby an integrated circuit and a grid defined by intersecting sets of parallel electrically-conductive traces for each replicate is applied to one surface of said material said traces being connected to a said integrated circuit; and

severing said roll of material between adjacent pairs of replicates to create a plurality of individual replicates each of which can be applied to an individual blister package.

20. The method of claim 19 including the step of applying an adhesive to said material for securely attaching a replicate to a blister package.

21. The method of claim 19 including the step of applying a roll of suitable cover material to said first-identified roll of backing material before said severing step whereby said integrated circuits and said traces are sandwiched between two layers defined by said cover material and

said backing material.

22. A blister package comprising:

a sheet of material having a plurality of openings therethrough.

5 a plurality of individual flexible blisters mounted to one surface of said sheet, each of said blisters being in registry with a corresponding opening;

an article located in each of said blisters;

a closure seal formed of frangible material extending across each said opening so as to hermetically capture the article in the corresponding blister;

10 a replicate secured to the opposite surface of said sheet, said replicate including:

a frangible backing sheet;

an integrated circuit on said backing sheet;

a grid defined by intersecting sets of parallel electrically-conductive traces on said backing sheet, said traces being connected to said integrated circuit;

15 a power source for the integrated circuit;

and means for attaching said replicate to said opposite surface;

said grid of traces being positioned on said backing sheet so that more than one of said traces will intersect a corresponding one of said closure seals when said replicate is attached to said package, whereby when an article is projected from its blister through said closure seal and said replicate the traces there below are broken, so as to define an event that can be
20 recorded by said integrated circuit.

23. A blister package comprising:

a sheet of material having a plurality of openings therethrough.

25 a plurality of individual flexible blisters mounted to one surface of said sheet, each of said blisters being in registry with a corresponding opening;

an article located in each of said blisters;

a closure seal formed of frangible material extending across each said opening so as to hermetically capture the article in the corresponding blister;

30 a replicate secured to said one surface of said sheet, said replicate including:

a frangible backing sheet;

an integrated circuit on said backing sheet;

a grid defined by intersecting sets of parallel electrically-conductive traces on said backing sheet, said traces being connected to said integrated circuit;

35 a power source for the integrated circuit; and

means for attaching said replicate to said one surface;

said grid of traces being positioned on said backing sheet so that more than one of said traces will intersect a corresponding one of said blisters when said replicate is attached to said package, whereby when an article is projected from its blister through said closure seal and said replicate the traces there below are broken, so as to define an event that can be recorded by said integrated circuit.

24. The package of claim 23 including a cover sheet through which said blisters project, said cover sheet being applied to said one surface of said backing material so as to capture said replicate between itself and said one surface of said backing material.

25. A blister package comprising:

a first flap, a second flap, and a spine hingedly attached to each of said first and second flaps;

a plurality of individual flexible blisters mounted to an inside surface of said second flap;
a plurality of openings extending through a rear surface of said second flap, each of said openings being in registry with a corresponding blister;

an article located in each of said blisters;

a closure seal formed of frangible material extending across each said opening so as to hermetically capture the article in the corresponding blister;

a replicate secured to said inside surface of said second flap, said replicate including:
a frangible backing sheet;

an integrated circuit;

a plurality of individual electrically conductive traces on said backing sheet, each of said traces being connected to said integrated circuit;

a power source for the integrated circuit; and

means for attaching said replicate to said second flap;

each of said traces being positioned on said backing sheet so as to intersect a corresponding one of said blisters when said replicate is attached to said second flap, whereby when an article is projected from its blister through said closure seal and said replicate the corresponding trace is broken, so as to define an event that can be recorded by said integrated circuit.

26. The package of claim 25 wherein said integrated circuit is provided on said backing sheet.

27. The package of claim 25 wherein said integrated circuit is provided on said first flap.

28. A blister package comprising:

a first flap, a second flap, and a spine hingedly attached to each of said first and second

flaps;

a plurality of individual flexible blisters mounted to an inside surface of said second flap;

a plurality of openings extending through a rear surface of said second flap, each of said openings being in registry with a corresponding blister;

an article located in each of said blisters;

a closure seal formed of frangible material extending across each said opening so as to hermetically capture the article in the corresponding blister;

a replicate secured to said inside surface of said second flap, said replicate including:

a frangible backing sheet;

an integrated circuit;

a grid defined by intersecting sets of parallel electrically conductive traces on said backing sheet, each of said traces being connected to said integrated circuit;

a power source for the integrated circuit; and

means for attaching said replicate to said second flap;

said grid of traces being positioned on said backing sheet so that more than one of said traces will intersect a corresponding one of said blisters when said replicate is attached to said second flap, whereby when an article is projected from its blister through said closure seal and said replicate the traces therebelow are broken, so as to define an event that can be recorded by said integrated circuit.

29. The package of claim 28 wherein said integrated circuit is provided on said backing sheet.

30. The package of claim 28 wherein said integrated circuit is provided on said first flap.